## **Claims**

- [c1] What is claimed is:
  - 1.A mobile communication device for display direction information, comprising:
  - a control unit;
  - a memory, connected to the control unit and having a program for calculating the direction information; an output display, connected to the control unit and; and
  - a digital compass, connected to the control unit and converting the direction information from the control unit;
  - wherein the control unit calculates the direction information by the program stored in the memory, and the direction information is transmitted by the digital compass to the output device.
- [c2] 2.The mobile communication device as claimed in claim 1, wherein the memory can be a read-only memory (ROM).
- [c3] 3.The mobile communication device as claimed in claim 1, wherein the output device can be a thin-film transistor (TFT) display or plasma display.

- [c4] 4.The mobile communication device as claimed in claim 1, further comprising an input device, a microphone, a speaker, a radio unit and a power source, and the control unit for controlling the input device, the microphone, the speaker and the power source.
- [c5] 5.A mobile communication device for display direction information, comprising: a control unit;

a memory, connected to the control unit and having a program for calculating the direction information; an output display, connected to the control unit and; and

a magnetic sensor, connected to the control unit and converting the strength of the Earths magnetic field; and a tilt sensor, connected to the magnetic sensor and measuring the orientation and sending the orientation to the magnetic sensor;

wherein the control unit calculates the direction information by the program stored in the memory, and the direction information is transmitted by the magnetic sensor to the output device.

[c6] 6.The mobile communication device as claimed in claim 5, wherein the memory can be a read-only memory (ROM).

- [c7] 7.The mobile communication device as claimed in claim 5, wherein the output device can be a thin-film transistor (TFT) display or plasma display.
- [08] 8.The mobile communication device as claimed in claim 5, wherein the magnetic sensor can be called a three-axis magnetic sensor.
- [c9] 9.The mobile communication device as claimed in claim 5, wherein the tilt sensor can be called a two-axis tilt sensor.
- [c10] 10.The mobile communication device as claimed in claim 5, further comprising an input device, a microphone, a speaker, a radio unit and a power source, and the control unit for controlling the input device, the microphone, the speaker and the power source.